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Sequence Listing was accepted.

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Reviewer: Durreshwar Anjum

Timestamp: [year=2008; month=11; day=14; hr=11; min=15; sec=12; ms=209;  
]

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Application No: 10088952 Version No: 2.0

**Input Set:**

**Output Set:**

**Started:** 2008-10-20 18:06:18.505  
**Finished:** 2008-10-20 18:06:20.810  
**Elapsed:** 0 hr(s) 0 min(s) 2 sec(s) 305 ms  
**Total Warnings:** 28  
**Total Errors:** 0  
**No. of SeqIDs Defined:** 28  
**Actual SeqID Count:** 28

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)

**Input Set:**

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**No. of SeqIDs Defined:** 28  
**Actual SeqID Count:** 28

Error code	Error Description
	This error has occurred more than 20 times, will not be displayed

SEQUENCE LISTING

<110> Leppla, Stephen H.  
Liu, Shi-Hui  
Netzel-Arnett, Sarah  
Hansen-Birkental, Henning  
Bugge, Thomas  
The Government of the United States of America  
as represented by the Secretary of the  
Department of Health and Human Services

<120> Mutated Anthrax Toxin Protective Antigen Proteins That  
Specifically Target Cells Containing High Amounts of  
Cell-Surface Metalloproteinases or Plasminogen  
Activator Receptors

<130> 015280-405100US

<140> 10088952  
<141> 2002-03-22

<150> US 60/155,961  
<151> 1999-09-24

<150> WO PCT/US00/26192  
<151> 2000-09-22

<160> 28

<170> PatentIn Ver. 2.1

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protease cleavage sequence

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<210> 2  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:matrix  
metalloproteinase (MMP)-recognized cleavage site,  
gelatinase favorite substrate sequence

<400> 2

Gly Pro Leu Gly Met Leu Ser Gln  
1 5

<210> 3  
<211> 8  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence:matrix  
metalloproteinase (MMP)-recognized cleavage site,  
gelatinase favorite substrate sequence

<400> 3  
Gly Pro Leu Gly Leu Trp Ala Gln  
1 5

<210> 4  
<211> 9  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
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plasminogen activator (t-PA) and urokinase-type  
(u-PA) recognized cleavage site, physiological  
substrate sequence

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1 5

<210> 5  
<211> 7  
<212> PRT  
<213> Artificial Sequence  
  
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plasminogen activator (u-PA)-recognized cleavage  
site, favorite sequence

<400> 5  
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<210> 6  
<211> 7  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence:urokinase-type

plasminogen activator (u-PA)-recognized cleavage  
site, favorite sequence

<400> 6  
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<210> 7  
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<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:tissue-type  
plasminogen activator (t-PA)-recognized cleavage  
site, favorite sequence

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<210> 8  
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<212> DNA  
<213> Artificial Sequence

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<400> 8  
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<210> 9  
<211> 30  
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<213> Artificial Sequence

<220>  
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primer R1

<220>  
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<222> (1)  
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<210> 10  
<211> 52  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:mutagenic  
phosphorylated sequence primer H1

<220>  
<221> modified\_base  
<222> (1)  
<223> n = phosphorylated g

<400> 10  
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<210> 11  
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<212> DNA  
<213> Artificial Sequence

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R2

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<210> 12  
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<213> Artificial Sequence

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mutagenic primer H2

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<222> (1)  
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<211> 33  
<212> DNA  
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<220>  
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reverse primer R1

<220>  
<221> modified\_base  
<222> (1)

<223> n = phosphorylated t  
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<210> 14  
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<220>  
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phosphorylated primer H1

<220>  
<221> modified\_base  
<222> (1)  
<223> n = phosphorylated t

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52

<210> 15  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:encoded by  
mutagenic phosphorylated primer H1

<400> 15  
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1 5

<210> 16  
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<212> DNA  
<213> Artificial Sequence

<220>  
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mutagenic primer H2

<220>  
<221> modified\_base  
<222> (1)  
<223> n = phosphorylated g

<400> 16  
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46

<210> 17

<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
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<400> 17  
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1 5

<210> 18  
<211> 46  
<212> DNA  
<213> Artificial Sequence

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<220>  
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<223> n = phosphorylated g

<400> 18  
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<210> 19  
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<212> PRT  
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<220>  
<223> Description of Artificial Sequence:encoded by phosphorylated mutagenic primer H3

<400> 19  
Gly Ser Gly Lys Ser Ala  
1 5

<210> 20  
<211> 46  
<212> DNA  
<213> Artificial Sequence

<220>  
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<220>  
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<223> n = phosphorylated c

<400> 20

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46

<210> 21

<211> 6

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence:encoded by  
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<400> 21

Gln Arg Gly Arg Ser Ala

1 5

<210> 22

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

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sequence minimized best substrate for u-PA

<400> 22

Ser Gly Arg Ser Ala

1 5

<210> 23

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:PA sequence at  
"furin loop"

<400> 23

Asn Ser Arg Lys Lys Arg Ser Thr Ser Ala Gly Pro Thr Val

1 5 10

<210> 24

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

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at "furin loop"

<400> 24  
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Pro Thr Val

<210> 25  
<211> 17  
<212> PRT  
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<220>  
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at "furin loop"

<400> 25  
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Val

<210> 26  
<211> 17  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:PA-U3 sequence  
at "furin loop"

<400> 26  
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Val

<210> 27  
<211> 17  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:PA-U4 sequence  
at "furin loop"

<400> 27  
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1 5 10 15

Val

<210> 28  
<211> 13  
<212> PRT  
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<220>  
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at "furin loop"

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